

DEPARTMENT OF LABOR  
Office of Occupational Safety and Health  
January 2006

803 KAR 2:412  
Fall Protection

**Section 1. Definitions.**

- (1) "**C.F.R.**" means Code of Federal Regulations.
- (2) "**Eave**" means the horizontal lower edge of a roof.
- (3) "**Employee**" is defined in KRS 338.015(2).
- (4) "**Employer**" is defined in KRS 338.015(1).
- (5) "**Fall restraint system**" means a system that:
  - (a) Is used to prevent an employee from falling any distance consisting of an anchorage, connectors, and body belt or harness; and
  - (b) May include, lanyards, lifelines, or rope grabs designed for that purpose.
- (6) "**Guardrail system**" is defined in 29 C.F.R. 1926.500(b).
- (7) "**Leading edge**" is defined in 29 C.F.R. 1926.500(b).
- (8) "**Personal fall arrest system**" is defined in 29 C.F.R. 1926.500(b).
- (9) "**Rake edge**" means the roof edge at the gable end of a structure.
- (10) "**Residential construction**" means construction work on a stand alone single family dwelling, duplex, threeplex, or fourplex structure.
- (11) "**Roofing work**" is defined in 29 C.F.R. 1926.500(b).
- (12) "**Safety monitoring system**" is defined in 29 C.F.R. 1926.500(b).
- (13) "**Safety net system**" means a system used in accordance with 29 C.F.R. 1926.502(c).
- (14) "**Slide guard system**" means an equipment system that:
  - (a) Is designed to prevent employees from sliding off a sloped roof to a lower level; and
  - (b) Consists of manufactured roof brackets used in conjunction with dimensional lumber or may be a site-built system of similar design and dimension.

(15) "**Slope**" means the roof vertical rise in inches for every horizontal twelve (12) inch length, with:

- (a) The horizontal twelve (12) inch length referred to as the run;
- (b) The slope referred to as pitch; and
- (c) The slope expressed with the rise (vertical) mentioned first and the run (horizontal) mentioned second, such as "4 in 12" or "4 on 12" and written as "4 in 12" or "4:12" or "4/12."

(16) "**Standard**" is defined in KRS 338.015(3).

(17) "**Three (3) points of contact**" means either:

- (a) One (1) hand and both feet; or
- (b) One (1) foot and both hands.

(18) "**Visible defect**" means saw cuts, warps, twists, holes, splits, breaks, or gouges.

(19) "**Walking/working surface**" is defined in 29 C.F.R. 1926.500(b).

**Section 2.** (1) The construction industry shall comply with the following federal regulations, except as modified by the definitions in Sections 1 and 3 of this administrative regulation:

- (a) 29 C.F.R. 1926.500 through 29 C.F.R. 1926.501(b)(12), revised July 1, 2005; and
- (b) 29 C.F.R. 1926.501(b)(14) through 29 C.F.R. 1926.503, revised July 1, 2005.

(2) An employer may utilize Appendices A, B, C, D, and E to Subpart M of 29 C.F.R. Part 1926, revised July 1, 2005, except the Sample Fall Protection Plan for Residential Construction found in Appendix E.

(3) The Non-Mandatory Sample Fall Protection Plan for Residential Construction may be used and is incorporated by reference in Section 4 of this administrative regulation.

**Section 3. Residential Construction. (1) General.** (a) While engaged in residential construction activities, employees working ten (10) feet or more above a lower level shall be protected by guardrail systems, safety net systems, personal fall arrest systems, or a measure provided in this section while exposed to any of the following:

- 1. Unprotected sides and edges;
- 2. Leading edges;
- 3. Hoist areas;
- 4. Form work and reinforcing steel; or
- 5. Roofing work on roof slopes three (3) in twelve (12) or less.

(b) The employer shall use a measure that meets the criteria established in this section and shall not be required to demonstrate that it is infeasible or creates a greater hazard to use guardrail systems, safety net systems, or personal fall arrest systems before using a measure provided in this section.

(c) If an employer can demonstrate that it is infeasible or creates a greater hazard to use guardrail systems, safety net systems, personal fall arrest systems, or a measure established in this section, for a particular workplace situation, the employer shall develop and implement a written fall protection plan which meets the requirements of 29 C.F.R. 1926.502(k) for a particular workplace situation in lieu of implementing guardrail systems, safety net systems, personal fall arrest systems, or a measure provided in this section.

**(2) Floor system.** (a) Employees engaged in residential construction floor system work exposed to a fall hazard ten (10) feet or more above a lower level to the exterior of the structure being constructed shall be protected by guardrail systems, safety net systems, personal fall arrest systems, or personal fall restraint systems.

(b) Employees engaged in residential construction floor system work exposed to an interior fall hazard ten (10) feet or more above a lower level shall be protected by guardrail systems, safety net systems, personal fall arrest systems, personal fall restraint systems, or, if the floor joists or trusses are eighteen (18) inches on center or less, the measures established in this paragraph.

1. The first joist or truss shall be placed into position and secured by workers on the ground, from ladders, or from a scaffold system.
2. Successive joists or trusses shall be placed into position and then secured from a secured temporary platform.
3. The temporary platform shall be at least eighteen (18) inches wide and secured.
4. An employee performing the work shall work from the platform and remain on the platform.

(c) Employees engaged in leading edge residential construction floor system work ten (10) feet or more above a lower level shall be protected by guardrail systems, safety net systems, personal fall arrest systems, personal fall restraint systems, or, if the floor joists or trusses are eighteen (18) inches on center or less, the measures established in this paragraph.

1. The first row of floor sheathing shall be placed into position, installed, and secured from the ground, from ladders, from a scaffold system, or from a secured temporary platform at least eighteen (18) inches wide.
2. An employee performing the work shall work from the platform and remain on the platform.
3. After the first row of sheathing has been installed and secured, only employees performing the installation shall work from the established and secured deck or from a secured temporary platform at least eighteen (18) inches wide.
4. After two (2) rows of sheathing have been installed, only an employee performing the installation shall work from the established and secured deck or from a secured temporary platform at least eighteen (18) inches wide.
5. All other employees shall remain at least four (4) feet away from the leading edge.

**(3) Roof system.** (a) Employees engaged in residential construction roof truss or rafter work ten (10) feet or more above a lower level shall:

1. Be protected by guardrail systems, safety net systems, personal fall arrest systems; or
2. Personal fall restraint systems or implement the measure established in paragraph (b) of this subsection.

(b) The employee releasing the hoist line or installing the bracing shall:

1. Move or work from within the webbing of the truss or within the rafters on a secured temporary platform at least eighteen (18) inches wide; or
2. Maintain three (3) points of contact while moving or working within the webbing of the trusses or within the rafters.

(c) Employees shall not move or work outside the webbing of the trusses or outside the rafters unless utilizing a personal fall arrest system or personal fall restraint system.

(d) Employees engaged in roof sheathing may utilize a slide guard system in accordance with the provisions established in subsection (6) of this section.

(e) Employees engaged in residential construction attic work ten (10) feet or more above a lower level shall be protected by guardrail systems, safety net systems, personal fall arrest systems, personal fall restraint systems, or the measures established in this paragraph.

1. Employees shall move or work from within the webbing of the trusses or within the rafters on a secured temporary platform at least eighteen (18) inches wide.
2. Employees shall remain on the platform while performing the work.

**(4) Roofing work.** (a) Supplies or materials shall not be placed or stored within six (6) feet of the roof edge.

(b) A person shall not ascend, work on, or descend the roof within six (6) feet of the rake edge except while applying or removing roofing materials or equipment.

(c) Warning line systems. 1. Employees engaged in residential construction roofing work ten (10) feet or more above a lower level on roof slopes three (3) in twelve (12) or less shall be protected by guardrail systems, safety net systems, personal fall arrest systems, personal fall restraint systems, or a combination of warning line system and guardrail system, warning line system and safety net system, warning line system and personal fall arrest system, warning line system and personal fall restraint system, or warning line system and safety monitoring system. On roofs fifty (50) feet or less in width, a safety monitoring system alone may be used. Appendix A to Subpart M of 29 C.F.R. Part 1926, revised July 1, 2005, may be used as a guideline to determine roof width.

2. Employees performing residential construction roofing work between a roof edge and a warning line shall be protected by guardrail systems, safety net systems, personal fall arrest systems, or personal fall restraint systems.

**(5) Slide guard systems.** (a) Employers and employees installing residential construction roof sheathing with a ground to eave height up to twenty-five (25) feet or engaged in residential construction roofing work with a ground to eave height up to twenty-five (25) feet may utilize a slide guard system in accordance with the provisions established in this subsection with a safety monitor system meeting the requirements of 29 C.F.R. 1926.502(h)(1) through (h)(4).

(b) Slide guards systems shall not be used with a slope less than four (4) in twelve (12) or greater than eight (8) in twelve (12).

(c) Employers and employees installing residential construction roof sheathing who utilize a slide guard system shall install the slide guard system immediately after the first row of sheathing is installed.

(d) Slide guard systems shall comply with the following provisions.

1. Each slide guard system shall be installed, utilized, and removed under the supervision of a competent person.
2. Each slide guard system shall be used in accordance with the manufacturer's specifications, limitations, and recommendations.
3. Each slide guard system shall be maintained in accordance with the manufacturer's specifications and recommendations.
4. The manufacturer's specifications shall be available at the jobsite for review if the slide guard system is not utilized and maintained in accordance with this subsection.
5. Each slide guard system shall be inspected for visible defects by a competent person before each work shift and after any occurrence which could affect the slide guard system's structural integrity.
6. For each slide guard system, each damaged or weakened component shall be immediately replaced or repaired.
7. For each slide guard system, if replacement or repair of a damaged or weakened component is not feasible, work shall be suspended until:
  - a. The damaged or weakened component is replaced or repaired; or
  - b. Another form of fall protection is utilized.
8. The face of all slide guard members shall be ninety (90) degrees perpendicular to the roof surface.
9. Unless required otherwise by the manufacturer's specifications, all perpendicular slide guard members shall:
  - a. Be number two (2) or better construction grade lumber;
  - b. Have a minimum dimension of two (2) inches nominal by six (6) inches nominal;
  - c. Use lumber that is free from cracks or other visible defects; and

- d. Use other type of material that meets the same dimensions and is equivalent in strength, with the engineering specifications available at the site for review.
- 10. All perpendicular slide guard members shall be secured to the brackets and protected against cantilevering or failure due to material flex.
- 11. All slide guard systems shall be on the same walking/working surface as the employee being protected.
- 12. A continuous slide guard system below the walking or working area shall be installed along the eave no closer than six (6) inches from the eave and remain in place until the work is completed.
- 13. Additional continuous slide guards systems shall be installed below each walking or working area no more than eight (8) feet apart vertically.
- 14. The additional slide guards shall be installed using the following procedure:
  - a. The employee, while standing on the slide guard below, shall secure the roof bracket, or jack, for the next slide guard;
  - b. The employee shall install and secure the next perpendicular slide guard member;
  - c. The employee shall then climb up to the new slide guard to continue work;
  - d. This sequence shall be repeated as work proceeds up the roof;
  - e. Once the work is complete and the slide guards are to be removed, the employee shall climb down to the next lower slide guard;
  - f. The employee shall remove the perpendicular slide guard member from the slide guard above;
  - g. The employee shall remove the roof brackets, or jacks, above;
  - h. The employee shall repeat the sequence down the roof; and
  - i. When all above slide guards have been removed, the slide guards at the eave shall be removed.
- 15. Manufactured roof brackets, or jacks, shall:
  - a. Be a minimum of six (6) inch brackets;
  - b. Be secured according to the manufacturer's specifications, limitations, and recommendations;
  - c. Bear on a solid surface so that all anchors penetrate the roof's surface and the rafter or truss below, unless specified otherwise by the manufacturer's specifications;
  - d. Not be spaced greater than eight (8) feet apart horizontally or according to the manufacturer's specifications, whichever is less; and,

e. Have the manufacturer's specifications available at the jobsite for review if the manufactured roof brackets, or jacks, are not utilized in accordance with the provisions established in this subparagraph.

16. Nonmanufactured, job, or site made slide guard systems shall comply with the provisions established in this subparagraph.

- a. Horizontal members shall be anchored with a minimum of two (2) sixteen (16) "penny", or 16d, common nails at least every four (4) feet so that all nails penetrate the roof's surface and the rafter or truss below.
- b. The face of all slide guard members shall be ninety (90) degrees perpendicular to the roof surface.
- c. Horizontal and perpendicular members shall be number two (2) or better construction grade lumber and have a minimum dimension of two (2) inches nominal by six (6) inches nominal.
- d. Perpendicular members shall be anchored to the horizontal members with a minimum of one (1) sixteen (16) "penny", or 16d, common nail at least every two (2) feet.
- e. The perpendicular member shall be provided with support bracing at least every six (6) feet.
- f. More than one (1) person shall not occupy any given eight (8) feet of a job made slide guard system.
- g. Engineering specifications shall be available at the site for review if the design or installation does not meet the minimum specifications established in this subparagraph. An engineer's seal shall not be required. Engineering specifications shall establish that nonmanufactured, job, or site made slide guard systems shall be equivalent to a system constructed in accordance with the provisions established in this subparagraph.

**Section 4. Incorporation by Reference.** (1) A "Non-Mandatory Sample Fall Protection Plan for Residential Construction," August 2005, is incorporated by reference.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Department of Labor, 1047 US Highway 127 South, Suite 4, Frankfort, Kentucky 40601, Monday through Friday, 8 a.m. to 4:30 p.m., or from the agency's Web site at [www.labor.ky.gov](http://www.labor.ky.gov).

DEPARTMENT OF LABOR  
Office of Occupational Safety and Health

**Non-Mandatory Sample Fall Protection Plan for Residential Construction**  
August 2005

Employers engaged in residential construction work who demonstrate that it is infeasible or creates a greater hazard to use fall protection systems or a measure provided in 803 Kentucky Administrative Regulation 2:412, must develop and implement a written fall protection plan. This non-mandatory Fall Protection Plan for Residential Construction is a sample program intended to provide guidance to employers on the type of information that is required to be discussed in fall protection plans. This sample plan outlines the minimum elements that must be addressed in any fall protection plan.

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**(Company Name)**

This Fall Protection Plan is for:

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**(Location of Job)**

Plan Prepared by:

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**(Name of Qualified Person)**

Date Plan Prepared:

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Plan Implemented by:

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**(Name of Competent Person)**

Date Plan Change Made:

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Plan Change Approved by:

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**(Name of Qualified Person)**



### COMPANY POLICY

\_\_\_\_\_ is dedicated to the protection of its employees from on-the-job injuries.  
(Company Name)

All employees of \_\_\_\_\_ have the responsibility to work safely on the job. The  
(Company Name)  
purpose of this Fall Protection Plan is to supplement our existing safety and health program and to ensure  
that every employee who works for \_\_\_\_\_ recognizes workplace fall hazards and  
(Company Name)  
takes the appropriate measures to address those hazards.

### IMPLEMENTATION

This Plan is designed to enable employees to recognize the fall hazards associated with this job and to establish the safest procedures that are to be followed in order to prevent falls.

It is the responsibility of \_\_\_\_\_ to implement this Fall Protection Plan. Continual  
(Name of Competent Person)

observational safety checks of work operations and the enforcement of this Plan shall be regularly

enforced. \_\_\_\_\_ is responsible for correcting any unsafe practices or conditions  
(Name of Competent Person)

immediately. Any changes to this Plan must be approved by \_\_\_\_\_.  
(Name of Qualified Person)

It is the responsibility of the employer to ensure that all employees understand and adhere to the

procedures of this Plan and to follow the instructions of \_\_\_\_\_. It is the  
(Name of Competent Person)

responsibility of each employee to bring attention to any unsafe or hazardous conditions or practices that may cause injury to either themselves or any other employees. Each employee will be trained in these procedures established in this Plan and will strictly adhere to them except when doing so would expose the employee to a greater hazard. If, in the employee's opinion, this is the case, the employee is to notify

\_\_\_\_\_ of their concern and have the concern addressed before proceeding.  
(Name of Competent Person)

### **INFEASIBILITY/GREATER HAZARD**

During residential construction, sometimes it is infeasible or creates a greater hazard to use fall protection systems or a measure established in 803 KAR 2:412 at specific areas of the job. This Fall Protection Plan addresses the use of fall protection on this project and those locations that require alternative means of fall protection. In the locations identified in this Plan, fall protection systems or a measure established in 803 KAR 2:412 is infeasible / creates a greater hazard.

**(Choose and circle one)**

### **ALTERNATIVE MEASURE(s)**

This Plan establishes the safest procedures to be followed at the work site to prevent falls when it is infeasible or creates a greater hazard to comply with 803 KAR 2:412. These alternative measures reduce the risk of falling and are designed to accomplish the work with minimum employee exposure to fall hazards. Possible alternative measures include, but are not limited to scaffolds, scissor lifts, aerial lifts, use of ladders, and safety monitor system with warning line system, and catch platforms.

### **CONTROLLED ACCESS ZONE(s)**

When using this Plan, employees must be protected through limited access to high hazard locations.

Before any alternatives are used as part of this Plan, a controlled access zone (CAZ) shall be clearly

defined and under the control of \_\_\_\_\_. The demarcation of the CAZ shall be in  
**(Name of Competent Person)**

accordance with 29 CFR 1926.502(g). All access to the CAZ is restricted to authorized entrants. All workers who are permitted in the CAZ shall be listed in the appropriate sections of this Plan and be

identifiable by \_\_\_\_\_ prior to implementation of the CAZ.  
**(Name of Competent Person)**

\_\_\_\_\_ shall ensure that all protective elements of the CAZ are  
**(Name of Competent Person)**

implemented prior to the beginning of work.

Location 1: \_\_\_\_\_

**Infeasible / Creates a Greater Hazard**  
**(Choose and circle one)**

Reason(s): \_\_\_\_\_

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Alternative Measure(s):

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Authorized CAZ Entrant(s):

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Location 2: \_\_\_\_\_

**Infeasible / Creates a Greater Hazard**  
**(Choose and circle one)**

Reason(s): \_\_\_\_\_

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Alternative Measure(s):

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Authorized CAZ Entrant(s):

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### **ENFORCEMENT**

Constant awareness of and respect for fall hazards and compliance with all safety rules are considered

conditions of employment. \_\_\_\_\_ reserves the right to discipline employees,  
(Company Name)

including, but not limited to, warnings up to and including, termination, for failure to follow this Plan.

### **ACCIDENT INVESTIGATIONS**

All accidents that result in injury to workers, regardless of their nature, shall be immediately reported. If a fall or some other related incident occurs, such as a near miss, it will be investigated and documented. It is an integral part of this Plan that documentation take place as soon as possible so that the cause and means of prevention can be identified to prevent similar types of falls or incidents. This Plan shall be reviewed to determine if additional practices, procedures, or training is needed to prevent similar types of falls or incidents from occurring.

### **CHANGES TO PLAN**

Any changes to this Plan will be approved by \_\_\_\_\_. This Plan shall be reviewed  
(Name of Qualified Person)

by \_\_\_\_\_ as the job progresses to determine if additional practices, procedures, or  
(Name of Qualified Person)

training needs to be implemented by \_\_\_\_\_ to improve or provide additional fall  
(Name of Competent Person)

protection. All employees shall be notified and trained in the new procedures. A copy of this Plan and all approved changes shall be maintained at the jobsite.